

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently amended) A built-in antenna mounted on the inside of a wireless communication terminal, comprising:
 - a feed point for supplying electromagnetic signals to the antenna; and
 - a first radiator for omni-directionally releasing electric waves based on the electromagnetic signals in a first band of electromagnetic waves,wherein the feed point is positioned substantially near a center of an electrical length of the first radiator within a 30% distance radius from the center of the antenna and the electric waves are released non-directionally.
2. (Cancelled)
3. (Currently amended) The built-in antenna as recited in claim 1, wherein the feed point is positioned at a location of $\frac{1}{4}\lambda$ from ~~the longitudinal~~ an end of the first radiator, wherein λ denotes a wavelength.
4. (Currently amended) The built-in antenna as recited in claim 1, further comprising:
 - a short circuit pin for grounding the antenna; and
 - a short circuit line for releasing the supplied signals partially, the short circuit line being positioned between the short circuit pin and the feed point and having ~~the same length as the radiator~~ a length which is half of the electrical length of the first radiator.
5. (Currently amended) The built-in antenna as recited in claim ~~[[4]]~~ 1, wherein the short circuit line has a meander line structure ~~including an inductance component to offset a capacitance component of a human body.~~

6. (Currently amended) The built-in antenna as recited in claim 1, ~~wherein the radiator includes further comprising:~~

a ~~first~~ second radiator for releasing ~~Global Standard for Mobile Communication (GSM) band electric waves~~ a second band of electromagnetic waves, the ~~first~~ second radiator being stretched out to an end of the first radiator ~~the upper part of the antenna from the feed point;~~ and

a ~~second~~ radiator for releasing ~~Digital Command Signal (DCS) band electric waves,~~ the ~~second~~ radiator being stretched out to ~~the lower part of the first radiator from the feed point,~~

~~wherein an offset current component is minimized and constructive interference occur by making the first and second radiators release electromagnetic signals in the same direction.~~

7. (Currently amended) The built-in antenna as recited in claim 6, further including:
a short circuit pin for grounding the antenna;

a short circuit line for releasing the supplied signals partially, the short circuit line being positioned between the short circuit pin and the feed point and having ~~the same length as the radiator~~ a length which is half of the electric length of the first radiator.

8. (Currently amended) The built-in antenna as recited in claim 7, wherein the short circuit line has a meander line structure ~~including an inductance component to offset a capacitance component of a human body.~~

9. (Currently amended) The built-in antenna as recited in claim 8, wherein the second radiator is stretched out in both right and left directions based on the feed point and releases ~~non-directional electric waves~~ omni-directional electromagnetic waves by distributing the ~~DCS~~ second band electromagnetic signals to ~~the~~ an entire contact surface.

10. (Currently amended) The built-in antenna as recited in claim 7, wherein the first and second radiators ~~are~~ comprise conductive wires having a width of $1.5 \times 10^{-3} \lambda_0$, and the ~~first~~ second radiator ~~has~~ comprises a meander line structure with a space of $2.0 \times 10^{-3} \lambda_0$ and a total length of $0.7 \lambda_0$, while the ~~second~~ first radiator ~~has~~ comprises a total length of $0.35 \lambda_0$,

wherein λ_0 is a wavelength of electric wave released by the first radiator at a resonance frequency.

11. (Currently amended) The built-in antenna as recited in claim 10, wherein each of the conductive ~~wire~~ wires is a nickel-plated copper material having a thickness of 0.6×10^{-3} λ_0 and the conductive wire is supported by a frame, which is obtained by injection-molding polycarbonate (PC)-acrylonitrile butadiene styrene (ABS) mixture, and mounted on the inside of the terminal.

12. (Original) The built-in antenna as recited in claim 6, wherein the first and second radiators are formed by using copper tape, and surface coating injection is performed on the surface of the first and second radiators by using a low-pressure injector to prevent corrosion of the surface.

13. (Original) The built-in antenna as recited in claim 6, wherein the first and second radiators are formed of flexible printed circuit board (PCB) and fixed by using an adhesive material.

14. (Currently Amended) The built-in antenna as recited in claim 6, wherein the ~~first~~ second radiator is veered vertically or diagonally to a surface including the ~~second~~ first radiator so as to make the ~~first~~ second radiator relatively far from a hand of a human body.

15. (New) The built-in antenna as recited in claim 6, wherein the first band is Digital Command Signal (DCS) band and the second band is Global Standard for Mobile Communication (GSM) band.